

### **REMARKS**

Upon entry of the present amendment, the claims in the application are claims 1-5

#### ***Rejections Under 35 USC 103***

Applicant respectfully traverses the 35 USC 103 rejections.

It is respectfully submitted that the cited art, taken singly or in combination, fails to teach or make obvious the **intensive evaporation of liquid mercury**, and obtaining a directional flow of **pure mercury vapor** which rapidly fills up the internal space of the electron lamp.

The OA concedes that Traksel does not expressly disclose separating the exhaust tube portion containing the capsule from the evacuation unit and evaporation of liquid mercury.

The OA also concedes that Traksel does not exemplify glass capsule disposed within a metal container provided with at least one opening whose diameter is much less than the diameter of the glass capsule and rupturing of the glass capsule when heated.

The OA further concedes that Traksel does not exemplify the radiation provided by a high frequency induction heating unit

Applicant respectfully submits that Traksel discloses a low-pressure mercury discharge lamp in which the **glass** capsule wall is heated by means of a radiation beam, such that the wall melts in this location and an opening is formed in the capsule.

The Traksel **glass** capsule 20 contains an **amalgam** as a mercury source (Traksel col. 4, lines 53-55; col. 5, lines 19-22).

It is respectfully submitted that it would not be obvious to a PHOSITA to modify Traksel's glass capsule in such a way to provide a pure mercury vapor from an amalgam which rapidly fills the internal space of the lamp of different form and volume.

The difficiencies of Traksel are not supplied by the other cited art.

In particular, Latassa discloses a mercury dispenser for discharge lamps in which there is provided at least one opening is a glass capsule, and a long duration of the heating effect is needed to release mercury vapor through this opening into the inner space of the lamp.

In addition, Latassa requires special electrodes of a very complicated design.

Furthermore, due to the long duration of the heating effect required by Latassa, the other cited art, and by known technologies, this inevitably results in mercury oxidation and therefore its excessive consumption.

Also, applicant's specification paragraph 8 explains that Latassa proposes to place the capsule within the arc discharge lamp tube, inside a protective shield made of glass or metal; and that mounting of such capsules within the working area of arc discharge lamp tube is rather complicated, and the process of operation does not exclude a damage to the internal structure of the arc discharge lamp tube.

It is also important to note that Latassa discloses using the container with a liquid mercury which is also is an integral part of the electrode inside of the lamp .

Furthermore, the Latassa container also can not be used to receive a directional flow of pure mercury vapor which flow fills up the internal space of the lamp (as required by applicant's claims).

The cited art, taken singly or in combination, fails to teach, make obvious or even suggest that mercury vapor can be introduced into the internal space of the lamp directly by vapor substantially by the explosion of liquid mercury into a vapor of pure mercury, resulting in a high speed **directional flow of pure mercury vapor** that rapidly fills up the internal space of the lamp.

It is important to note that the present invention provides for a source of **mercury vapor outside the working area**, and practically instantaneous ingress of **pure mercury vapor** into the internal space of the lamp.

In contrast, the cited art uses a long-term heating of mercury or an amalgam, and producing partially-oxidized mercury vapor as a result of supplying a high-rating current to the electrodes, thus causing the need to introduce excessive amounts of mercury or an amalgam.

Applicant further respectfully submits that:

- 1) a prima facie case of obviousness has not been made;
- 2) the modifications suggested by the OA **must be suggested by the prior art**, and **not by the Examiner** after reading applicant's disclosure; and
- 3) the modifications suggested by the OA violates current holdings of the CAFC.

For example, in a wide-ranging decision rendered in a case that had previously been before the U.S. Court of the Federal Circuit, the Court this time affirmed a jury instruction that **a modification is not obvious** unless **the prior art suggests** the desirability of the modification. *Cordis Corp. v. Medtronic AVE, Inc. and Boston Scientific Corp, Case Nos. 06-1393, -1394, -1395, -1396, -1415, -1416 (Fed. Cir., Jan. 7, 2008) (Bryson, J.)*.

Although Medtronic AVE agreed with the jury instruction on obviousness at trial, on appeal it challenged the instruction to the jury on obviousness. The jury was instructed that “a suggestion to combine references may also flow from the nature of the problem or from the ordinary knowledge of those skilled in the art that certain references are of special importance. If the prior art references as a whole do not teach, suggest or motivate that combination, then **they may not be combined**. The **mere fact that the prior art can be modified** does not make the modification obvious **unless the prior art suggests the desirability of the modification**.

Furthermore, a prima facie case of obviousness is a procedural tool, which, as used in patent examination, means not only that the evidence of the prior art would reasonably allow the conclusion that the OA seeks, but also that the prior art compels such a conclusion if applicant produces no evidence or argument to rebut it. In re Spada, 15 USPQ 2d 1655, 1657 (CAFC 1990).

In addition, the fact that none of the objects of the invention enumerated in applicant’s specification have been satisfied by the applied prior art is germane to a conclusion of non-obviousness. Vollrath Co. v. Premium Plastics, Inc., 183 USPQ 335, 338.

Applicant respectfully submits that the genius of invention is often a combination of known elements, which in hindsight seems preordained. To prevent hindsight invalidation of patent claims, the law requires some “teaching, suggestion or reason” to combine cited references. Gambro Lundia AB v. Baxter Healthcare Corp, 110 F.3d 1573, 1579, 42 USPQ2d 1378, 1383 (Fed. Cir. 1997).

The opportunity to judge by hindsight is particularly tempting. Consequently, the tests of whether to combine references need to be applied rigorously. In re Dembiczak, 175 F. 3d 994,

999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999); In re Gartside, 203 F.3d 1305, 53 USPQ 2d 1769 (2000) (guarding against falling victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher).

Whether a motivation to combine prior art references has been demonstrated is a question of fact. Winner International Royalty Corp. v. Wang, 202 F.3d 1340, 1348, 53 USPQ2d 1580, 1586 (Fed. Cir. 2000).

It is impermissible for the Examiner to first ascertain factually what applicant did, and then view the prior art in such a manner as to select from the random facts of that art only those which may be modified and then utilized to reconstruct applicant's invention from such prior art. In re Shuman, 361 F.2d 1008, 1012, 150 USPQ 54, 57 (CCPA 1966).

The test to be applied is whether the claimed invention would have been obvious to one skilled in the art when the invention was made, not to an Examiner after learning all about the invention. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1538, 218 USPQ 871, 879 (Fed. Cir. 1983).

Inventions must be held to be nonobvious where neither any reference, considered in its entirety, **nor the prior art as a whole**, suggested the combination claimed. Fromson v. Advance Offset Plate, Inc., 755 F.2d 1549, 1556, 225 USPQ 26, 31 (Fed. Cir. 1985); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 932-33 (Fed. Cir. 1984).

Nowhere does the OA indicate where **in the prior art** there might be a suggestion of combining teachings of the individual references, or how, if there was such a suggestion, such combination would equal the invention claimed by applicant.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found **in the prior art, and not** based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438.

In light of the foregoing, applicant respectfully submits that the OA has failed to make a prima facie case of obviousness with respect to the claims as now amended.

In view of the foregoing, applicant respectfully requests reconsideration of the 35 USC 103 rejections with a view to withdrawing same.

### ***Conclusion***

The application is now believed to be in condition for allowance, and a notice to this effect is earnestly solicited.

If the Examiner is not convinced that the application is now in condition for allowance, it is respectfully requested that the Examiner promptly telephone the undersigned attorney for applicant in an effort to facilitate the prosecution, and/or to narrow the issues for appeal, if necessary.

A Petition for an Extension of Time and the extension fee are submitted herewith.

Favorable consideration is respectfully requested.

Respectfully submitted,

Date: February 24, 2009  
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